

Amendments to the Claims

1-3. (Canceled)

4. (Previously Presented) The monitor protein of claim 13, wherein the pair of fluorescent proteins is a red-shifted green fluorescent protein (RSGFP) and a blue-shifted green fluorescent protein (BSGFP) of *Aequorea victoria*.

5. (Previously Presented) The monitor protein of claim 13, wherein the phosphorylation region comprises the amino acid sequence of SEQ ID NO:1.

6-8. (Canceled)

9. (Currently Amended) A method for measuring phosphorylation ability of a test protein, the method ~~comprises~~ comprising:

reacting the test protein with the monitor protein of claim 13, ~~and~~
measuring fluorescence of the monitor protein; and
comparing the fluorescence of the monitor protein that has been reacted with the test
protein to a monitor protein that has not been reacted with the test protein.

10-12. (Canceled)

13. (Currently Amended) A monitor protein for measuring protein phosphorylation, wherein the monitor protein comprises (a) a phosphorylation region that undergoes a conformational change upon phosphorylation and (b) a pair of fluorescent proteins, wherein ~~a~~ each fluorescent protein of the pair is bound to ~~each~~ an opposite end of the phosphorylation region, and wherein the conformational change causes phosphorylation of the phosphorylation region causes a change of the intensity of emitted fluorescence of the monitor protein.

Amendments to the Specification

(1) Please amend the paragraph on page 5, lines 18-23 as follows:

A change in fluorescence was determined using a non-radioactive phosphate as a substrate. The fusion protein derived from pETIC-ART showed differences in ~~absorption~~ fluorescence intensity as a function of wavelength depending on whether phosphorylation occurred with the nonradioactive phosphate. The fusion proteins derived from pETIC-Kempart or pETIC-1 did not show differences in ~~absorption~~ fluorescence intensity as a function of wavelength depending on whether phosphorylation occurred. These results uncovered the following two points.

(2) Please amend the paragraph on page 15, lines 18-19 as follows:

Figure 4 shows the effect of the addition of A kinase on ~~absorption~~ fluorescence intensity as a function of wavelength for "A-Kinase Responsive Tracer (ART)" (derived from pETIC-ART).

(3) Please amend the paragraph on page 15, lines 20-21 as follows:

Figure 5 shows the effect of addition of A kinase on ~~absorption~~ fluorescence intensity as a function of wavelength for "Kempart" (derived from pETIC-Kempart).

(4) Please amend the paragraph on page 15, lines 22-23 as follows:

Figure 6 shows the effect of addition of A kinase on ~~absorption~~ fluorescence intensity as a function of wavelength for a negative control protein (derived from pETIC-1).

(5) Please amend the paragraph on page 23, line 22 to page 24, line 4 as follows:

As shown in Fig. 4, in "ART," a difference in the ~~absorbance~~ fluorescence emission intensity patterns was observed for reactions in which A kinase was not added and reactions in which A kinase was added. When A kinase was not added, the stronger ~~absorbance~~ fluorescence intensity was observed at 500 nm. As the amount of added A kinase increased, the ~~absorbance~~ fluorescence intensity at 450 nm was enhanced. This indicates that a conformational change was generated by phosphorylation of the CREB phosphorylation sequence, allowing RSGFP and BSGFP at either end of the CREB sequence to interfere with each other, emitting fluorescence.